

## **ABSTRACT**

A model of dental caries may include simulated decay material in a cavity in an artificial tooth. The artificial tooth may be made of resin. The cavity may include an opening that extends from a simulated enamel surface to, e.g., at least the dentinoenamel junction of the tooth. The model may include at least one groove that extends from the opening (e.g., along the dentinoenamel junction). The cavity may contain simulated decay material in a groove and/or the opening. The simulated decay material is a homogenous substance that may include a curable resin, a porous substance, and/or coloring. The simulated decay material may be detectable with caries detecting stain. An etching solution and/or a curable bonding substance may be applied to the cavity before the simulated decay material is applied. The simulated decay material may simulate dental caries in color, texture, and/or tenacity.

15